

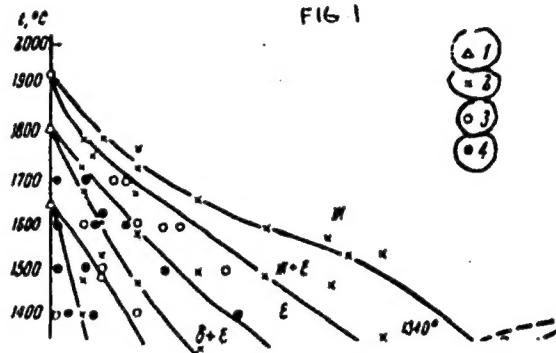
Polymorphous conversion of ...

21754
 S/078/61/006/005/013/015
 B121/B208

khimii, 5, 2640 (1960). Ref. 5: A. T. Grigor'yev, Ye. Yu. Pu, Ye. M. Sokolovskaya. Zh. neorgan. khimii, 5, 2642 (1960). Ref. 6: A. T. Grigor'yev, Ye. M. Sokolovskaya, A. T. Nefedov, M. V. Maksimova. Vesten. MGU (in the press)). There are 2 figures, 1 table, and 14 references: 8 Soviet-bloc and 6 non-Soviet-bloc. The four most recent references to English-language publications read as follows: Ref. 7: M. Hansen, K. Anderko, Constitution of binary alloys, 1958; Ref. 8: D. S. Bloom, N. J. Grant, J. Metals, 3, 1009 (1951); Ref. 9: D. S. Bloom, J. W. Putman, N. J. Grant, J. Metals, 4, no. 6 (1952); Ref. 10: C. Stern, N. J. Grant, J. Metals, 7, 127 (1955).

SUBMITTED: December 8, 1960

FIG 1



Card 3/4

24729

18 9200

18 1230

AUTHORS: Grigor'yev, A. T., Yeh Yu-p'u, Sokolovskaya, Ye. M.

TITLE: Study of the solid-state transitions in the part of the system chromium - cobalt which is rich in cobalt

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 7, 1961,
1616-1621

TEXT: The system chromium - cobalt was studied in the part containing up to 50% cobalt; the part of the system which is rich in chromium was already previously investigated and the results were published (Ref. 3: A. T. Grigor'yev, Yeh Yu-p'u, Ye. M. Sokolovskaya. Zh.neorgan.khimii., v. 5, no. 11, (1960)). This study supersedes and corrects a previous paper (Ref. 2: A. T. Grigor'yev, N. M. Gruzdeva. Izv. Sektora fiz.-khim. analiza, 24, 124 (1954)). The specimens were produced by melting together the pure elements at 900°C; subsequently, temperature was reduced to 400°C in the course of over two months, cooling to room temperature was carried out in the furnace. The following studies were carried out on the specimens: differential thermal analysis, studies of

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Study of the solid-state transitions ...

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microstructure, hardness, resistivity and its temperature coefficient. The Table lists the results of measurement. As shown on Fig. 2, the region investigated contains three hitherto unknown intermetallic compounds: Co_3Cr (α_1 -phase), Co_2Cr (α_2 -phase), and Co_3Cr_2 (α_3 -phase). They are due to phenomena of arrangement in the mixed crystals at $620^\circ C$ (Co_3Cr), $640^\circ C$ (Co_2Cr), and $625^\circ C$ (Co_3Cr_2). Three eutectoids of approximately 28 at% Cr ($605^\circ C$), 35 at% Cr ($615^\circ C$) and 42 at% Cr ($610^\circ C$) are found between the intermetallic compounds. There are 7 figures, 1 table, and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to English-language publication reads as follows: M. Hansen, K. Anderko. Constitution of Binary Alloys, 1958.

SUBMITTED: July 1, 1960

Card 2/4

18.7500

25509

S/078/61/006/008/008/018
B121/B203

AUTHORS: Grigor'yev, A. T., and Kuprina, V. V.

TITLE: Transformation "order - disorder" in alloys of iron with cobalt and palladium

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 8, 1961, 1891-1901

TEXT: Phase transformations in alloys of iron with cobalt and palladium at temperatures below 1000°C were studied by physicochemical methods (differential-thermal analysis, hardness determination, microstructure, electrical resistivity, and its temperature coefficient). The differential-thermal analysis was conducted with a $\text{TK}-52$ ($\text{PK}-52$) Kurnakov pyrometer. The alloys were studied on their sections $\text{Pd}_3\text{Fe}-\text{Co}$; $\text{Pd}_3\text{Fe}-\text{FeCo}$; $\text{PdFe}-\text{Co}$; $\text{PdFe}-\text{FeCo}$;

$\text{FeCo}-\text{Pd}$. The mixture $\alpha + \gamma$ appeared in the polymorphous transformation $\alpha \rightleftharpoons \gamma$. A large area of the section $\text{Pd}_3\text{Fe}-\text{Co}$ is covered by the solid γ -solution. The hardness of ordered alloys of this section is greater than that of disordered alloys, which confirms the heterogeneous character of these alloys. In the section $\text{Pd}_3\text{Fe}-\text{FeCo}$, the ternary solid solution is

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B121/B203

Transformation "order ...

transformed as follows: (1) Polymorphous $\alpha \rightleftharpoons \gamma$ transformation in alloys with 52 at% palladium, (2) transformation of the solid α -solution into ordered α_1 -phase, and (3) decomposition of solid γ -solution with subsequent formation of a γ_1 -phase. Alloys richer in palladium decompose while forming the ordered phase γ_2 . The hardness of alloys changes with changing hardening temperature. In the section PdFe-Co, wide areas of ternary solid γ -solutions form only at higher temperatures. With a decrease in temperature in alloys containing up to 80 at% Co, a polymorphous $\alpha \rightleftharpoons \gamma$ transformation proceeds while forming two ordered phases, α_1 and γ_1 . The chemical compound PdFe comprises a wide range in the ternary system. Between 1 and 50 at% of Pd, the chemical compound PdFe forms in the two-phase range $\alpha + \gamma$, and the phases $\alpha + \gamma_1$ and $\alpha + \gamma + \gamma_1$ form by reaction of these phases. In alloys containing more than 50 at% of Pd, the ordering process is accompanied by the formation of a broad heterogeneous $(\gamma + \gamma_1)$ -phase. Two stable phases, $(\alpha + \alpha_1)$ and $\gamma + \gamma_1$, appear on the section PdFe-FeCo.

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Transformation "order..."

25509

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The phase diagram for the systems iron - palladium and iron - cobalt and the projection of the phase boundaries at room temperature in the three-component system were plotted on the basis of the present study and the papers Ref. 1 (V. V. Kuprina, A. T. Grigor'yev, Zh. neorgan. khimii, 4, 1606, (1959)) and Ref. 14 (V. V. Kuprina, A. T. Grigor'yev, Zh. neorgan. khimii 3, 2736, (1958)). Fig. 5 shows this diagram. There are 5 figures, 2 tables, and 14 references: 4 Soviet-bloc and 10 non-Soviet-bloc.

SUBMITTED: July 1, 1960

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Card 3/3

GRIGOR'YEV, A.T.; SOKOLOVSKAYA, Ye.M.

Transformation in the solid state occurring in chromium and alloys
based on it, Vest.Mosk.Un.Ser.2: khim. 16 no.6:3-15 N-D '61.
(MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet, Kafedra obshchey khimii.
(Chromium) (Chromium alloys)

GRIGOR'YEV, A.T. (Moskva)

M.V. Lomonosev and his views on physics. Fiz.v shkole 21 no.4:11-15
Jl-Ag '61. (MIRA 14:10)

(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Physics--Philosophy)

GRIGOR'YEV, A.T.; KUPRINA, V.V.

Study of chromium-molybdenum-nickel alloys in the region of a
solid solution on a chromium base. Zhur.neorg.khim. 7 no.4:
942-945 Ap '62. (MIRA 15:4)
(Chromium-molybdenum-nickel alloys)

33282

181152
S/078/62/007/002/018/019
B127/B110

AUTHORS: Grigor'yev, A. T., Sokolovskaya, Ye. M., Bogatyrev, I. L.

TITLE: Physicochemical study of phase transformations in Co-Mn alloys

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 2, 1962, 441-444

TEXT: Transformations of Co - Mn alloys in solid state were studied by the thermal differential analysis of hardness (PK-52 (PK-52) pyrometer), measurement of the electrical resistance and its temperature coefficient, tests of microstructure and microhardness. At 30 atom% Mn, a transformation in the melt caused by a γ - α -transition of Co, was observed, with Mn lowering the temperature of transformation. A two-phase region, $\alpha+\beta$, $\beta+\gamma$ due to Mn polymorphy, was found in the part rich in Mn. Another transformation was found in the center part of the diagram caused by formation of CoMn occurring in two polymorphous modifications: γ_1 at low temperatures up to 515°C and γ_2 at high temperatures up to 805°C . Hardness tests showed a minimum at 50 atom% which corresponds to CoMn. Minima occurring at 25 and 75 atom% Mn indicate the possibility of Co_3Mn and

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Physicochemical study of phase...

33262
S/078/62/007/002/018/01
B127/3110

CoMn₃ formations. This, however, requires further studies. F. Gal'perin is mentioned. There are 4 figures, 1 table, and 4 references: 3 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: M. Hansen, K. Anderko, Constitution of binary alloys, 1958.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonossova, Kafedra obshchey khimii (Moscow State University imeni M. V. Lomonosov, Department of General Chemistry)

SUBMITTED: July 11, 1961

Fig. 2. Phase diagram Mn - Co (A. T. Grigor'ev et al.) (1) Thermal analysis; (2) electrical resistance; (3) one phase; (4) two phases.

Fig. 4. Hardness of tempered Co - Mn alloys. Abscissa: atom% Mn.

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S/078/62/007/004/016/016
B107/B110

AUTHORS: Grigor'yev, A. T., Kuprina, V. V.

TITLE: Study of the alloys of chromium with molybdenum and nickel
in the field of mixed crystal on chromium basis

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 4, 1962, 942 - 945

TEXT: One part of a section through the system Cr - Mo - Ni, starting from the chromium corner down to 60% of Cr, ratio Ni:Mo = 1:3, temperature range 1200 - 1900°C was studied. Electrolytic chromium (99.98%), electrolytic nickel (99.98%), and molybdenum (99.95%) were used as initial materials. The specimens were heated in an arc furnace in argon atmosphere and also quenched in argon atmosphere. Examination of the microstructure of the samples yielded the following results (Fig. 1): four solid phases corresponding to the various chromium modifications were observed. Two-phase regions take their origin from the transition points of chromium (950°, 1350°, 1650°, 1830°C). There are 2 figures, 1 table, and 4 Soviet references. ✓

SUBMITTED: October 2, 1961
Card 1/2

S/078/62/007/005/009/014
B101/B110

AUTHORS: Grigor'yev, A. T., Sokolovskaya, Ye. M., Pyatigorskaya, L.I.,
Maksimova, M. V.

TITLE: Solid-state conversions in alloys of the system
chromium-iron

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 5, 1962, 105-1109

TEXT: 60 alloys of electrolytic chromium and iron (up to 80 at% Fe) were investigated by plotting the differential heating curves, contact-free thermal high-temperature analysis, determining hardness and microhardness after 1000 hr tempering and subsequent hardening (1800-400°C in oil, 1300-300°C in H₂O). The phase diagram Cr-Fe was plotted on the basis of these data (Fig. 3). The existence of the five chromium modifications α - ϵ was confirmed. There are 4 figures and 2 tables. The most important English-language references are: P. O. Williams, H. W. Paxton, J. British Iron and Steel, Inst., 185, 358 (1958); P. O. Williams, Trans. Metallurg. Soc., ASME, 212, 497 (1958).

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Solid-state conversions in...

S/078/62/007/005/009/014
B101/B110

SUBMITTED: June 23, 1961

Fig. 3. Phase diagram of the system chromium-iron on the basis of the authors' results. (1) Polymorphous conversions; (2) thermal analysis; (3) electrical resistance; (4) one phase; (5) two phases.

Legend: Am. % Fe = at% Fe.

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Solid-state conversions in...

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B101/B110

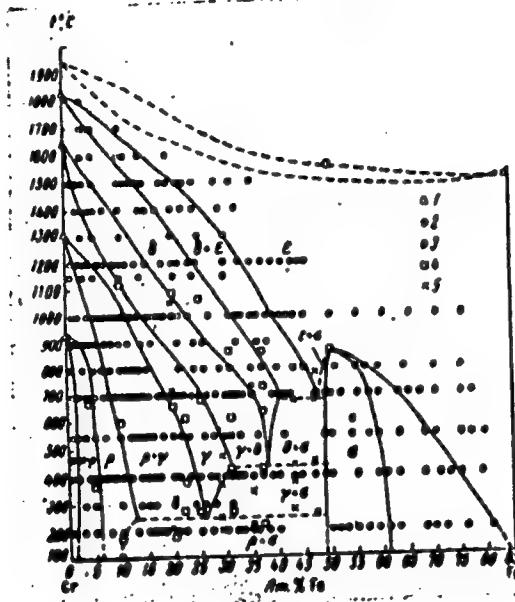


Fig. 3

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B101/B110

18.10.80
AUTHORS: Grigor'yev, A. T., Panteleymonov, L. A., Kuprina, V. V.,
Goldobina, G. V.

TITLE: Investigation of alloys of the system palladium-gold-nickel

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 5, 1962, 1110-1116

TEXT: The system Pd-Au-Ni was studied on 77 alloys with palladium concentrations between 10 and 90 % rising by 10 % each. Thermal analysis of the liquid state, differential analysis of the tempered alloys (500 hr in vacuo at 900°C), investigation of the microstructure, and determination of the Brinell hardness, of the resistivity at 25 and 100°C, and of its temperature coefficients were carried out. Results: (1) At constant Pd content, the liquidus and solidus curves suggest the existence of a continuous series of solid solutions. The melting-point curves show a flat minimum in the range of medium concentrations. (2) At a Pd content below 20 %, the ternary solid solution decomposes, and a mechanical mixture forms within a wide range, which consists of solid solution on the basis of gold and solid solution on the basis of nickel. (3) Hardness and

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Investigation of alloys of...

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B101/B110

resistivity increase in the range of the mechanical mixture almost linearly with the concentration of Au, show a break at the phase boundary, and - in the range of the ternary solid solution - maxima at medium Au concentrations. (4) The curves for the temperature coefficient of the resistivity are countercurrent to those for hardness and resistivity. There are 6 figures and 2 tables. *X*

SUBMITTED: June 27, 1961

Card 2/2

GRIGOR'YEV, A.T., SOKOLOVSKAYA, Ye.M.; BOGATYREV, I.L.

Physicochemical study of phase transformations in alloys of cobalt with manganese. Zhur.neorg.khim. 7 no.2:441-444 F '62.
(MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,
kafedra obshchey khimii.
(Cobalt-manganese alloys) (Phase rule and equilibrium)

GRIGOR'YEV, A.T.; SOKOLOVSKAYA, Ye.M.; PYATIGORSKAYA, L.I.; MAKSIMOVA, M.V.

Solid-state conversions in alloys of the chromium - iron system.
Zhur.neorg.khim. 7 no.5:1105-1109 My '62. (MIRA 15:7)
(Chromium-iron alloys)

GRIGOR'YEV, A.T.; PANTELEYMONOV, L.A.; KUPRINA, V.V.; GOLDOBINA, G.V.;
RUDNITSKIY, M.A.

Alloys of the system palladium - gold - nickel. Zhur.neorg.khim.
7 no.5:1110-1116 My '62. (MIRA 15:7)
(Palladium-gold-nickel alloys)

S/078/62/007/011/005/005
B101/B186

AUTHORS: Sokolovskaya, Ye. M., Grigor'yev, A. T., Smirnova, Ye. M.

TITLE: Solid-state conversions in alloys of the copper-manganese system which are rich in manganese

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 11, 1962, 2656-2658

TEXT: Copper-manganese alloys containing 0.5-31 atom% Mn were investigated by thermal analysis. Their hardness was determined, their microstructure was examined after 690 hr annealing in an argon atmosphere and after quenching from 350, 450, 700 or 800°C in a mixture of acetone with dry ice, their electrical resistances were measured at high temperature and they were subjected to x-ray analysis. The heating curves show thermal effects which indicate ordering of the solid γ -solution at 16.3 atom% Mn (Cu_3Mn) and 400°C, also at 25 atom% Mn (Cu_3Mn) and 450°C. The hardness curves are smooth for quenching temperatures of 800-700°C but irregular for 400-350°C, with minima corresponding to Cu_5Mn and Cu_3Mn . The formation of these compounds in the solid phase was manifest also in the curves of electrical

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Solid-state conversions in alloys...

S/078/62/007/011/005/005
B101/B186

resistance and of its temperature coefficient. X-ray patterns for alloys of Cu_5Mn or Cu_3Mn type composition showed no superstructure lines.

There are 4 figures.

SUBMITTED: April 25, 1962

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S/659/62/008/000/005/028
I048/I248

AUTHORS: Grigor'yev, A.T., Sokolovskaya, Ye.M., Sokolova, I.G.,
and ~~Maksimova~~, M.V.

TITLE: Polymorphous transformations in chromium, and structure
of the chromium-based solid solution in the system
chromium-iron-molybdenum

SOURCE: Akademiya nauk SSSR. Institut metallurgii, Issledovaniya
po zhatoprochnym splavam. v.8. 1962. 42-46

TEXT: An isopleth through the Cr-Mo-Fe system radiating from the Cr
corner and representing a fixed 3:1 (st:wt) Fe:Mo ratio was con-
structed on the basis of microstructural and x-ray analysis data
for 33 different alloys. The total Fe+Mo content of the alloys
studied did not exceed 45%; the alloy specimens were prepared in a
W-arc furnace in argon atmosphere using Ti as the getter, and tem-
pered at 1400-1700°C before the tests. The solidus temperatures
were 1750, 1715, 1640, 1620, and 1620°C for the alloys containing
96, 86, 76, 62, and 58% Cr respectively. Three homogenous regions

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S/659/62/008/000/005/028
I048/I248

Polymorphous transformations...

representing solid solutions based on the ϵ , δ , and γ modifications of Cr were found to exist, together with the $\epsilon + \delta$ and $\gamma + \delta$ two-phase regions; the $\epsilon + \delta$ region is associated with the $\epsilon \rightleftharpoons \delta$ transformation at 1830°C , while the $\gamma + \delta$ is associated with the $\gamma \rightarrow \delta$ transformation at 1650° . The simple ϵ phase occupies the region beneath the solidus curve, while the γ phase occupies the Cr-rich corner at temperatures below 1600° . An x-ray analysis of the 90% Cr alloy quenched from 1500°C showed that the ϵ -modification possesses a b.c.c. lattice with $a=2.878$ KX . There are 4 figures and 1 table.

Card 2/2

SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; SMIRNOVA, Ye.M.

Solid state transformations in alloys of the system
copper-manganese rich in copper. Zhur. neorg. khim. 7
no.11:2636-2638 N '62. (MIRA 15:12)
(Copper-manganese alloys)

S/078/62/007/012/021/022
B144/B180

AUTHORS: Sokolovskaya, Ye. M., Grigor'yev, A. T., Altunin, Yu. F.

TITLE: Solid-state transitions in iron - manganese alloys

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 12, 1962, 2809-2811

TEXT: The Fe - Mn system was investigated to discover whether there is formation of intermetallic compounds as observed in the Fe - Co and Fe - Ni systems. The studies included differential thermal and x-ray analyses, determinations of hardness, microhardness, microstructure, resistivity and its temperature coefficient, and temperature dependence. In the region of 25 - 55 at% Mn the differential curves showed two breaks at 700 - 800°C and at 150 - 250°C. These have not hitherto been described and are due to solid-state transitions. This was also evident from two maxima in the region of the solid γ -solution, indicating the formation of the intermetallic compounds FeMn and Fe_2Mn . The occurrence of FeMn with an Mn content of ~50 at% was confirmed by the hardness and resistivity, measurements etc. The exact nature of the low-temperature transition at Card 1/2

Solid-state transitions in iron - ...

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B144/B180

~32 at% Mn remains to be elucidated. It is possible that Fe_2Mn forms as well as $FeMn$. There are 5 figures.

SUBMITTED: April 26, 1962

Card 2/2

S/078/63/008/001/013/026
B101/B186

AUTHORS: Grigor'yev, A. T., Pozharskaya, G. V.

TITLE: Investigation of alloys of the system palladium-iron-copper

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 141-145

TEXT: Polythermal cross sections through the system Pd - Fe - Cu with palladium content of 10-80 at-% and the radial section Pd - Cu : Fe = 1:1 were investigated. It was found that the ranges of ternary solid γ solution of Cu and Pd in Fe, and solid ϵ solution of Fe and Pd in Cu, become progressively wider with increasing Pd concentration at solidus as well as at room temperature, combining respectively at 33 or 38 at-%. Owing to the change in the solubilities of Cu and Fe in Pd, the range of ternary solid solutions becomes progressively narrower with decreasing temperature. Above 40 at-% Pd, continuous solid solutions are formed. For alloys with $Pd \leq 30$ at-%, the crystallization ranges of the solid γ and ϵ solution as well as the three-phase range liq + γ + ϵ were determined. The thermographic effect at $735^{\circ}C$ corresponds to the eutectoidal decomposition of the alloy and the appearance of the $\alpha + \gamma$ and $\epsilon + \alpha + \gamma$ phase. The effect at

Card 1/2

Investigation of alloys of the...

S/078/63/008/001/013/026
B101/B186

665°C corresponds to the magnetic conversion. Furthermore, a thermal effect was found at 1070°C, the cause of which is assumed to be the formation of the chemical compound Pd_2FeCu , which exists in two modifications whereby the conversion $\sigma_2 \rightleftharpoons \sigma_1$ at 650°C shows itself also as a thermal effect.

Microscopic investigation of the alloys confirmed the thermographic results. There are 4 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 6, 1962

Card 2/2

GRIGOR'YEV, A.T.; KURINA, V.V.

Alloys of chromium with iron and cobalt. Zhur. neorg. khim. 8
no.10:2351-2354 0 '63. (MIRA 16:10)

(Chromium, iron, cobalt, alloys)

GRIGOR'YEV, A.T.; KUPRINA, V.V.; BERNARD, V.B.

Chromium-iron-cobalt alloy in the region of a chromium-based
solid solution. Vest. Mosk. un. Ser. 2: Khim. 18 no.5:41-
43 S-0 '63. (MIRA 16:11)

1. Kafedra obshchey khimii Moskovskogo universiteta.

GRIGOR'YEV, A.T.; YUPRINA, V.V.

Alloys of chromium with iron and nickel. Zhur. neorg. khim.
8 no.11:2563-2565 N '63. (MIRA 17:1)

GRIGOR'YEV, A.T.; POZHARSKAYA, G.V.

Properties of palladium-iron-copper alloys. Zhar. neorg. khim. 2
no.12:2694-2699 D '63. (MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

L 24484-65 EWT(a)/EPF(b)-2/T/EWP(t)/EMP(b) Pu-4 IJP(c)/SSD/AFWL/
ASD(f)-2/ASD(a)-5/ASD(m)-3/AFETR/ RAEM(c) JD/JG

ACCESSION NR: AP4029188

s/0078/64/009/004/0883/0889

AUTHOR: Nefedov, A. P.; Sokolovskaya, Ye. M.; Grigor'yev, A. T.; Sokolova, I. G.; Nedumov, N. A.

TITLE: Solid-state phase transformations in vanadium tantalum alloys B

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 4, 1964, 883-889

TOPIC TAGS: vanadium tantalum system, system phase diagram, vanadium tantalum alloy, solid solution, crystal structure, alloy property, alloy phase, vanadium, vanadium base alloy, vanadium containing alloy, tantalum, tantalum base alloy, tantalum containing alloy

ABSTRACT: The V-Ta system was studied in view of incomplete and contradictory state of the literature. Some 39 alloys containing 0-100% tantalum were subjected to microscopic, thermal and x-ray diffraction analyses, and determinations of hardness, microhardness, specific electric resistance and of the temperature coefficient of electric resistance were made. The phase diagram (Fig. 1) shows that at temperatures above 13000 the alloys of the V-Ta system form a

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ACCESSION NR: AP4029188

continuous series of solid solutions. At 1300 + 10C V_2Ta intermetallic compound is formed; at 900C its area of homogeneity extends from 32-39 at% Ta. At 900C the two-phase area (α + V_2Ta , V_2Ta + β) extends from 9-52 at%; at 1250C this area is reduced to 15-45 at% Ta. The curves of the composition dependence of hardness and specific electric resistance and its temperature coefficient show a smooth change within the regions of solid solutions and breaks at 34 at.% Ta corresponding to the region of V_2Ta . X-ray diffraction patterns show the alloy with 34 at.% Ta to consist of one crystalline phase having a tetragonal lattice, with parameters $a = 5.041 \text{ \AA}$, $c = 6.702$, and $z = 4$. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 18Jul63

ENCL: 01

SUB CODE: MM, 88

NO REF Sov: 004

OTHER: 006

Card 2/3

GRIGOR'YEV, A.T.; KUPRINA, V.V.; BERNARD, V.B.

Chromium alloys with iron and cobalt in the region of chromium
based solid solution. Vest. Nauk. in. Ser. 2 Khim. 19 no.2
37-40 Mr-ap'64 (MIRA 1716)

1. Kafedra obshchey khimii Moskovskogo universiteta.

L 58702-65 EWT(m)/EWP(w)/EPF(n)-2/EWA(d)/T/EWP(t)/EWP(b)/EWA(c) Pu-1
TJP(c) JD/JG

ACCESSION NR: AP5016587 UR/0363/65/001/005/0715/0720

546.881 + 546.883 + 546.882 + 546.881 + 546.883 +
546.77.541.123.3

AUTHOR: Nefedov, A. P.; Sokolovskaya, Ye. M.; Grigor'yev, A. T.; Sikolova, I. G.

TITLE: Phase diagram of the ternary systems V - Ta - Nb and V - Ta - Mo

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 5, 1965,
715-520

TOPIC TAGS: tantalum alloy, vanadium alloy, niobium alloy, molybdenum alloy,
tantalum compound, vanadium compound, phase diagram

ABSTRACT: This study was carried out by means of microscopic analysis, high-temperature noncontact thermal analysis, hardness and microhardness measurements, x-ray analysis, and determination of the temperatures of the start of fusion. In each ternary system, alloys were prepared in two sections: in a section with a constant content of 10 at. % Nb (or Mo) and in a radial section with a constant ratio (at. %) V:Ta = 2:1. A total of 68 alloys was prepared by fusion in an arc furnace in argon. Data obtained for the alloys in the cast, homogenized, and quenched state were used to plot phase diagrams for the two ternary systems. The components were found to form a continuous series of solid solutions which, as the temperature was lowered toward compositions adjoining the

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L 58702-65

ACCESSION NR: AP5016587

binary system V - Ta, underwent transformations due to the formation of an ordered phase based on the binary compound TaV₂. X-ray analysis showed that in the V - Ta - Nb system the crystal lattice and cell constants of the ternary ordered phase are the same as those of the binary Laves phase TaV₂: $a = 5.058 \text{ \AA}$, $c = 8.250 \text{ \AA}$, $c/a = 1.631$, $z = 4$. In the V - Ta - Mo system, the ordered phase, while retaining the crystal structure of TaV₂, has slightly larger c and a constants. Thus, for the alloy with the radial section at 5 at. % Mo, $a = 5.090 \text{ \AA}$, $c = 8.322 \text{ \AA}$, $c/a = 1.635$. Ori. art. has: 7 figures.

ASSOCIATION: Khimicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Chemistry Department, Moscow State University)

SUBMITTED: 28Jan65

ENCL: 00

SUB CODE: IC, MM

NO REF Sov: 003

OTHER: 002

Card 2/2

7232-55 ENT(m)/T/ENP(t)/ENP(b)/EWA(c) IJP(c) JD/JG
ACC NR: AP5027907 SOURCE CODE: UR/0189/65/000/005/0042/0047

AUTHOR: Nefedov, A. P.; Sokolovskaya, Ye. M.; Grigor'yev, A. T.; Chechernikov, V. I.; Sokolova, I. G.; Ouzey, L. S.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Solid-state phase transformations in vanadium-tantalum alloys

SOURCE: Moscow, Universitet. Vestnik. Seriya II. Khimiya, no. 5, 1965, 42-47

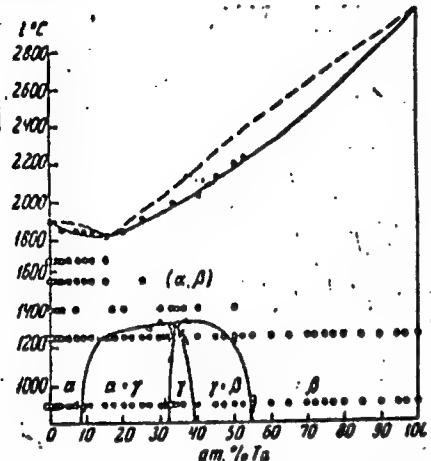
TOPIC TAGS: phase transition, vanadium alloy, tantalum alloy, vanadium compound, tantalum compound

ABSTRACT: The paper is devoted to the determination of the nature of the intermediate phase of TaV_2 and boundaries of its existence in $V-Ta$ system. The magnetic susceptibility was measured as a function of composition and temperature. The temperatures of the start of fusion (solidus temperatures) were determined. Data were obtained on the differential thermal analysis of alloys of the $V-Ta$ system, and on the microstructure, hardness, and crystal structure. The results were used to plot a phase diagram of the system (see Fig. 1).

Card 1/2 UDC: 536.7

L 7932-66

ACC NR: AP5027907



It is found that in the region of the stoichiometric composition where the ratio of the components (at. %) V : Ta = 2 : 1, prolonged stepwise annealing (lasting over 1600 hr) induces transformations which may be regarded as a process of ordering with the formation of the intermetallic compound TaV_2 . X-ray analysis showed that TaV_2 has a hexagonal structure similar to that of an $MgZn_2$ -type Laves phase, and lattice parameters $a = 5.058 \pm 0.005 \text{ \AA}$; $c = 8.250 \pm 0.005 \text{ \AA}$; $c/a = 1.631$, with four formula units per unit cell. Orig. art. has: 7 figures and 3 tables.

Fig. 1. Phase diagram of the V-Ta system based on data of this study

SUB CODE: MM,SS / SUBM DATE: 07Jan65 / ORIG REF: 006 / OTH REF: 002

PC
Card 272

NEFEDOV, A.P.; SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; SOKOLOVA, I.G.

Phase diagrams of the ternary systems V - Ta - Nb and V - Ta - Mo.
Inv. AN SSSR. Neorg. mat. 1 no.5:715-720 My '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,
khimicheskiy fakul'tet.

GRIGOR'YEV, A.T.; SOKOLOVSKAYA, Ye.M.; NEFEDOV, A.P.; SOKOLOVA, I.G.

Effect of molybdenum on transformations in the solid state
in alloys of the V - Ta system. Vest. Mosk. un. Ser. 2:Khim.
20 no.4:44-49 Jl-Ag '65. (MIRA 18:10)

1. Kafedra obshchey khimii Moskovskogo gosudarstvennogo uni-
versiteta.

NEFEDOV, A.P.; SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; CHECHERNIKOV, V.I.;
SOKOLOVA, I.G.; GUZEY, L.S.

Phase transitions in the solid state in alloys of vanadium
with tantalum. Vest. Mosk. un. Ser. 2:Khim. 20 no. 5:42-47
S-0 '65. (MIRA 18:12)

1. Kafedra obshchey khimii Moskovskogo gosudarstvennogo
universiteta. Submitted Jan. 7, 1965.

L 45328-56 EM(m)/T/EM(t)/ETI IJP(c) JD/JG

ACC NR: AP6019776

SOURCE CODE: UR/0370/66/000,003/0183/0192

AUTHOR: Grigor'yev, A. T. (Moscow); Sokolovskaya, Ye. M. (Moscow); Nefedov, A. P. (Moscow); Sokolova, I. G. (Moscow)

ORG: none

TITLE: Effect of niobium on solid-state transformations in alloys of the vanadium-tantalum system

SOURCE: AN SSSR. Izvestiya. Metally, no. 3, 1966, 183-192

TOPIC TAGS: vanadium alloy, tantalum alloy, niobium containing alloy, alloy phase diagram

ABSTRACT: In this paper, which continues their study of the V-Ta system, the authors attempted to determine the nature of the influence of niobium (which, like vanadium and tantalum, is an element of group V) on solid state transformations in alloys of this system, in the region of the metallic compound TaV₂. Both annealed (ordered) and quenched (from 1000, 1150, 1250, and 1400°C) alloys were investigated by physico-chemical techniques (microscopic and high-temperature contactless thermal analyses, hardness and microhardness measurements, determination of temperatures of starting fusion). On the basis of the data obtained, phase diagrams of the V-Ta-Nb system in a radial section with a constant ratio (at. %) V:Ta = 2:1 and in two polythermal sections (with 10 and 5 at. % Nb) were plotted, and the distribution of the phase regions was established in the ternary system at various temperatures. According to

Card 1/2

UDC: 669.017.13

L 45327 - 000

ACC NR: AP6019776

x-ray data, the crystal structure and lattice constants of the ternary ordered phase do not differ from those of the metallic compound TaV₂. Authors express their appreciation to L. S. Gusey for assistance in carrying out the thermal analysis. Orig. art. has: 3 figures and 3 tables.

SUB CODE: 11/ SUM DATE: 16Sep64/ ORIG REF: 005/ OTH REF: 003

Card 2/2 fv

GRIGOR'YEV, A.V.; KOZLOV, V.M.; FLORINSKIY, I.B.; SHEVCHENKO, N.S.

Automatic control of the uniformity of the heating of the coke
cake. Koks i khim. no.12:14-19 '63. (MIRA 17:1)

1. Magnitogorskiy metallurgicheskiy kombinat.

deceased

GRIGOR'YEV, A.V. [deceased]

Development of capillaries in post-traumatic regeneration of skeletal muscle tissue in mammals. Biul. eksp. biol. i med. 56 no.8:89-93 Ag '63. (MIRA 17:7)

1. Iz kafedry obshchey biologii (sav. - prof. G.M. Litver) i Leningradskogo meditsinskogo instituta imeni I.P. Pavlova. Predstavlena deystvitel'nym chlenom AMN SSSR A.V. Lebedinskim.

ORIGOR'YEV, A.V.; ZALUTSKAYA, T.L.; PECHEREY, L.Ye.; SMIRNOV, A.I.

Errors of coaxial calorimeter-type power measuring device due to
unequivalent heat losses. Trudy inst. Kom. stand., mer i izm. prib.
no. 53:10-20 '61. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii
im. D.I.Mendeleyeva.
(Microwaves) (Electric measurements)

GRIGOR'YEV, A.V. (Orenburg, Sovetskaya ul., d.2); AKOPYAN, T.A. (Orenburg, Nizhegorodskaya, d.8, kv. 3)

Comparative study of the results of radium and radiocobalt therapy in cancer of the lower lip. Vop.onk. 5 no.3:373-375 '59. (MIRA 12:12)

1. Iz kafedry rentgenologii i radiologii Orenburskogo meditsinskogo instituta (zav. - doktor med.nauk A.V. Grigor'yeva) i Orenburskogo oblastnogo onkologicheskogo dispansera (glavn. vrach - B.A. Solovaychik).

(LIPS, neoplasms, ther., radiocobalt & radium, comparison (Rus))

(COBALT, radioactive,

ther. of cancer of lip, comparison with radium (Rus))

(RADIUM, ther. use,

cancer of lip, comparison with radiocobalt (Rus))

KEIDYSH, M.V., akademik; FEDOROV, Ye.K., akademik; ARTSIMOVICH, L.A., akademik; SISAKYAN, A.P., akademik; GORENTY, I.I.; LIFSHITZ, P.L.; FOK, V.A.; LANDAU, L.D.; LIFSHITS, Ye.M.; SHAI'NKO, A.I.; FRALATILOV, I.M.; AIEPSEYEVSY, N.Ye.; VAYNSHTEYN, L.A.; FALLADIN, A.V., akademik; SATPAYEV, A.I., akademik; AMBARTSUMYAN, V.A., akademik; LUFREVICH, V.F.; MUSIELISHVILI, N.I., akademik; KARAFEYEV, E.K.; MUSTEL', E.R.; MASEVICH, A.G., doktor fiz.-matem.nauk; FRON, K.M.; MARTYNOV, B.Ya., prof.; GULDR'YEV, A.A., akademik; MAROV, K.K., prof.; COLOVKOVA, A.G., prof.; FILATOVA, L.G., prof.; FEYFE, Ya.V.; SEMIRKHATOV, B.N., prof.; TIKH, A.G.; RYCHAGOV, G.I.; BARSAYA, V.F.; VLASOVA, A.A.; BARANOVA, Ye.P.; KIBARDINA, L.A.; ISACHENKO, A.F.; IL'INA, Yu.P.; DANILOV, A.I., prof.; FLAUME, K.K.; NECHAYEVA, T.N., prof.; CHEPEK, L., doktor; SZANTO, Ladislav, akademik; BELACHIK, Yozef; FAN KLOK V'YEN; ZEGENSON, M.S., prof. (L'vov); STARKOV, N.; AERAMOVICH, Yu.; VOSKRESENSKIY, V.; KROPACHEV, A.; REZVOY, D., prof., (L'vov); FONDRAF'YEV, V.N., akademik; LEEDINSKIY, V.I., kand.geol.-mineral.-nauk; YANSHIN, A.L., akademik

"Priroda" is 50 years old. Priroda 51 no.1:3-16 Ja '62.

(MIRA 15:1)

1. Prezident AN SSSR (for Keldysh). 2. Glavnyy uchenyy sekretar' Prezidiuma AN SSSR (for Fedorov). 3. Akademik-sekretar' Otdeleniya fiziko-matem.nauk AN SSSR (for Artsimovich). 4. Akademik-sekretar' Otdeleniya biologicheskikh nauk AN SSSR (for Sisakyan). 5. Chlen-korrespondent AN SSSR, zamestitel' akademika-sekretarya Otdeleniya

(Continued on next card)

ORIGOR'YEV, A.V.

Lower Mesozoic history of the Pamir-Alay tectonic zone. Trudy
VAGT no.4:47-58 '58. (MIRA 12:6)
(Pamir-Alay--Geology)

BELYAYEVSKIY, N.A.; GRIGOR'YEV, A.V.; IVANOV, Yu.A.

Problems of and trends in geological mapping in the U.S.S.R..
Sov. geol. 2 no.12:3-11 D '59. (MIRA 13:5)

1. Ministerstva geologii i okhrany nedor SSSR.
(Geology--Maps)

GRIGOR'YEV, A.V.

Results of the session on the coordination in mineralogical (metallogenetic) research. Sov. geol. 3 no.6:147-148 Je '60. (MIRA 13:11)

1. Ministerstva geologii i okhrany nadr SSSR.
(Mineralogy)

VERESHCHAGIN, V.N.; IVANOV, Yu.A.; BELYAYEVSKIY, N.A., *glav. red.*;
ALEYNER, A.Z., *red.*; GRIGOR'YEV, A.V., *red.*; ZAYTSEV, I.K.,
red.; KLIMOV, P.I., *red.*; KRASNOM, I.I., *red.*; LANKIN, A.A.,
red.; MUZYLEV, S.A., *red.*; OGNEV, V.N., *red.*; TROSTNIKOVA,
N.Ya., *red.* izd-va; IYERUSALIMSKAYA, Ye.S., *tekhn. red.*

[Instruction for compiling and preparing for publication a
geological map at a scale of 1:50,000; supplement to the
instruction for organizing and conducting geological surveys
at a scale of 1:50,000 and 1:25,000] Instruktsiia po sostavle-
niyu i podgotovke k izdaniyu geologicheskoi karty masshtaba
1:50 000; dopolnenie k instruktsii po organizatsii i proizvod-
stvu geologos"emochnykh rabot masshtaba 1:50 000 i 1:25 000.
Moskva, Gosgeoltekhnizdat, 1962. 41 p. (MIRA 15:6)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedor.
(Geology--Maps)

BELYAYEVSKIY, N.A.; GRIGOR'YEV, A.V.; FEDYUK, V.I.

Regional studies of the subsurface geology of closed and partly closed territories. Sov.geol. 5 no.3:23-39 Mr '62.

(MIRA 15:4)

1. Ministerstvo geologii i okhrany nadr SSSR.
(Geology, Structural) (Prospecting)

GRIGOR'YEV, A.V. [Hryhor'iev, O.V.]

Late Cenozoic red beds in the northern Azov Sea region. Dop. AN URSR
no.1:105-111 '64. (MIRA 17:4)

1. Institut geologicheskikh nauk AN UkrSSR. Predstavлено академиком
АН UkrSSR V.G. Bondarchukom [Bondarchuk, V.H.].

BERRI, L.Ya., doktor ekon. nauk, prof.; MAKSIMOV, I.S.; BRAGINSKIY, B.I., doktor ekon. nauk; GRIGOR'YEV, A.Ye., doktor ekon. nauk, prof.; ITIN, L.I., doktor ekon. nauk, prof.; LOKSHIN, E.Iu., prof.; KAMENITSER, S.Ye., doktor ekon. nauk, prof.; OBLOMSKIY, Ya.A., kand. ekon. nauk, dots.; SHASS, M.Ye., doktor ekon. nauk, prof.; STEPANOV, A.Ya.; ULITSKIY, L.I., prof., doktor ekon. nauk; PODGORNOVA, V., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of socialist industry] Ekonomika sotsialisticheskoi promyshlennosti; uchetnik. 3., dop. i perer. izd. Pod red. L.I. Itina. Moskva, Gospolitizdat, 1963. 646 p. (MIRA 16:8)

1. Moscow. Gosudarstvennyy ekonomicheskiy institut. 2. Zavedeniyyushchiy kafedroy ekonomiki promyshlennosti Moskovskogo instituta narodnogo khozyaystva im. G.V. Plekhanova (for Itin).
(Russia--Industry)

RUMYANTSEV, A.F.; YEFIMOV, A.N.; TEPLOV, G.V.; LOKSHIN, E.Yu.;
KARPENKO, A.P.; GRIGOR'YEV, A.Ye.; FILIPPOV, V.F.;
PERESLEGIN, V.I.; TYAGAY, Ye., red.; TROYANOVSKAYA, N.,
tekhn. red.

[Economics of industrial enterprises] Ekonomika promyshlennikh predpriatii; uchebnik. 3. izd., perer. Moskva, Gospolitizdat, 1963. 574 p. (MIRA 16:10)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola.
(Industrial management)

GRIGOR'YEV, Andrey Yevgen'yevich; PETRUSHEV, I.M., red.; Gerasimova,
Ye.S., tekhn.red.; PONOMAREVA, A.A., tekhn.red.

[Economics of labor] Ekonomika truda. Moskva, Gosplanisdat,
1959. 375 p. (MIRA 12:8)
(Labor and laboring classes)

RUMYANTSEV, A.Y.; YEFIMOV, A.N.; TEPLOV, G.V.; LOKSHIN, E.Yu.; KARPEJKO, A.P.; GRIGOR'YEV, A.Ye.; FILIPPOV, V.P.; PERESLADIN, V.I., Prinimal uchastiye VOLODARSKIY, L.M.; TYAGAY, Ye., red.; POPOVA, T., tekhn.red.

[Economy of socialist industrial enterprises; textbook] Ekonomika sotsialisticheskikh promyshlennnykh predpriatii; uchebnik. Moskva. Gos.izd-vo polit.lit-ry, 1959. 591 p. (MIRA 13:3)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola. 2. Zamestitel' nachal'nika TSentral'nogo statisticheskogo upravleniya SSSR (for Volodarskiy).
(Industrial management)

BE..(I, L.Ya., doktor ekon. nauk, prof.; KAMENITSER, S.Ye., doktor ekon. nauk, B.I., kand. ekon. nauk, dots.; GERASHCHENKO, B.S., kand. ekon. nauk; GRIGOR'YEV, A.Ya., doktor ekon. nauk, prof.; ITIN, L.I., doktor ekon. nauk, prof.; LOKSHIN, E.Yu., doktor ekon. nauk, prof.; OBLOMSKIY, Ya.A., kand. ekon. nauk, dots.; SOKOLOV, B.M., doktor ekon. nauk, prof.; SHASS, N.Ye., doktor ekon. nauk; STEPANOV, A.Ya.; ULIMSKIY, L.I., doktor ekon. nauk, prof.; PODGORNOVA, V., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of socialist industry; textbook]Ekonomika sotsialisticheskoi proryshlennosti; uchobnik. Pod red. L.I. Itina, B.S. Gerashchenko. 2., dop. i perer. izd. Moskva, Gospolitizdat, 1961. 775 p.

(MIRA 15:10)

1. Moscow. Gosudarstvennyy ekonomicheskiy institut. 2. Zaveduyushchiy kafedroy ekonomiki proryshlennosti Moskovskogo gosudarstvennogo ekonomicheskogo instituta (for Itin).

(Russia--Industries)

RUMYANTSEV, A.F.; YEFIMOV, A.N.; TEPLOV, G.V.; LOKSHIN, E.Yu.;
KARPENKO, A.P.; GRIGOR'YEV, A.Ya.; FILIPPOV, V.F.;
PERESLEGIN, V.I.; TYAGAY, Ye., red.; TROYANOVSKAYA, N.,
tekhn. red.

[Economics of industrial enterprises; textbook]Ekonomika pro-
myshlennnykh predpriatii; uchebnik. 2., perer. i dop. izd.
Moskva, Gospolizdat, 1962. 574 p. (MIRA 15:9)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya
partiynaya shkola.
(Industrial management)

AKOPOV, R.Ya., kand. ekon. nauk, dots.; BASYUK, T.L., doktor ekon. nauk, prof.; BIRMAN, A.M., doktor ekon. nauk, prof.; GRIGOR'YEV, A.Ye., doktor ekon. nauk, prof.; DOKUKIN, V.I., prof.; IKONNIKOV, V.V., prof.; KONDRAKHEV, D.D., doktor ekon. nauk; KURSKIY, A.D., doktor ekon. nauk; LOKSHIN, E.Yu., doktor ekon. nauk, prof.; MALYY, I.G., kand. ekon. nauk, dots.; PERVUSHIN, S.P., kand. ekon. nauk; PLOTNIKOV, K.N., TYAPKIN, N.K., kand. ekon. nauk; FILIMONOV, N.P., kand. ekon. nauk; SHAFIYEV, K.N., doktor ekon. nauk; prof.; BAKOVETSKIY, O., red.; KOKOSHKINA, I., mladshiy red.; MOSKVINA, R., tekhn. red.

[Economics; communist means of production] Politicheskaya ekonomiya; kommunisticheskii sposob proizvodstva. Uchebnik 2., perer. i dop. izd. Moskva, Sotsksgiz, 1963. 599 p.

(MIRA 16:5)

1. Chlen-korrespondent Akademii nauk SSSR (for Plotnikov).
(Economics) (Communism)

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00051681

GRIGOR'YEV, B.

Beacon with a hydraulic rotor. Rech. transp. 22 no.11:59 N
'63. (MIRA 16:12)

APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00051681(

GRIGOR'YEV, B.A., doktor tekhn.nauk; GRIBOLEV, V.P., kand.tekhn.nauk

Evaluating the efficiency of the engine cooling system of automobiles under operating conditions. Avt.prom. 27 no.10:7-9 0 '61. (MIRA 14:10)

1. Vsesoyuznyy zaochnyy mashinostroitel'nyy institut.
(Automobiles--Engines--Cooling)

GRIGOR'YEV, B.A.

Combined method for the design of steam power plant with air condensation
of steam. Izv.AN SSSR Otd.tekh.nauk no.2:165-182 '47. (MLRA 6:12)

1. Predstavleno akademikom M.V.Kirpichevym. (Steam power plants)

GRIGOR'YEV, B.A.; POMICHEV, S.N.

Using albedograph for determining optical coefficients of
engineering materials. Inzh.-fiz.zhur. no.1:34-40 Ja '58.

(MIRA 11:7)

(Materials--Optical properties)

GRIGOR'YEV, B. A.

24-1-11/26

AUTHOR: Grigor'yev, B. A. (Moscow).

TITLE: Certain problems of heating of an unlimited plate by non-steady state radiation fluxes. (Nekotoryye zadachi nagreva neogranichennoy plastiny nestatsionarnymi luchistymi potokami).

PERIODICAL: Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk, 1958, No.1, pp. 86-94 (USSR)

ABSTRACT: The author considers non-steady state radiation fluxes of the impulse type (occurring for instance during atomic explosions), the density of which E at the irradiated surface is expressed by a derivative according to time τ of a power function and an index function. Unilateral heating is considered of an infinite plate of a thickness d by a radiation flux of the above described type for the following conditions: the coefficient of absorption A of the irradiated surface remains constant during the entire irradiation time; the radiation is absorbed at the surface of the plate, i.e. the thickness of the absorbing layer can be disregarded; there is no release of heat from the plate to the outside; the physical parameters of the plate material are equal in all its points and do not change as a result of heating;

Card 1/3

24-1-11/26
Certain problems of heating of an unlimited plate by non-steady state radiation fluxes.

there are no sources of heat inside and on the surface of the plate; at the beginning of the irradiation the temperature of the entire plate is completely uniform. The problem is one of the unidimensional problems of heat conductivity, which are functions of time, whereby the boundary conditions are of the second type. A sketch of the plate showing the selection of the coordinates is given in Fig. 2, p.88; the origin of the coordinate system is located on the side of the plate which is in shadow. At first the author derives a general solution which yields an equation for calculating the temperature at any point of the plane of the infinite plate, Eq.(22), p.91. Following that, the problem is solved for the thermal radiation of a powerful impulse source. In absence of a temperature wave the dimensionless heating increases generally with an increase in the dimensionless time and its maximum value always equals 1. It is stated that the data of Lawson (Ref.2) confirm the formation of temperature waves in materials which are heated by thermal radiation from an impulse source. The derived solutions and the method of

Card 2/3

Certain problems of heating of an unlimited plate by non-steady state radiation of fluxes. ^{24-1-11/26}

temperature calculation can be applied for practical purposes if the real conditions approximate adequately the conditions of the problem under consideration. There are 5 figures, 2 tables and 5 references - 4 Russian, 1 English.

SUBMITTED: February 6, 1957.

AVAILABLE: Library of Congress.

Card 3/3

GRIGOR'YEV, B.A.

Some problems in the radiant heating of infinite plates with
summary in English. Inzh.-tekhnicheskaya zhurn. no. 9:29-35 S '58. (MIRA 11:10)
(Radiant heating)

6.3000
6.4780

S/051/61/010/001/009/017
E201/E491

AUTHORS: Grigor'yev, B.A., Yershov, A.G. and Uvarov, V.A.

TITLE: Reflection of Radiation by an Infinite Plane
Illuminated With a Point Source.
I. Characteristics of the Radiation Field

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.96-103

TEXT: The authors derive theoretically characteristics of the radiation field for perfectly diffuse reflection and for specular (directed) reflection by an infinite plane when scattering in the medium above the plane can be neglected and only directional attenuation of the medium need be allowed for. Fig.1 and 2 show coordinates employed in calculations. The paper is entirely theoretical. There are 2 figures and 9 Soviet references. VB

SUBMITTED: October 3, 1959

Card 1/1

GRIGOR'YEV, B.A.; YERSHOV, A.G.; UVAROV, V.A.

Reflection of radiation from an unbounded plane surface irradiated
by a point emitter. Part 2: Particular cases of importance for
practical applications. Opt. i spektr. 10 no.2:198-208 F '61.

(MIRA 14:2)

(Radiation) (Reflection (Optics))

L 16835-63

EMT(1)/BOS AFPTC/ASD/IJP(C)/SSD

ACCESSION NR: AP3003279

S/0286/63/000/003/0058/0058

AUTHOR: Grigor'yev, B. A.

52

TITLE: Heliostatic Installation. Class F 02j; 46a, 9. No. 152989

SOURCE: Byul. izobreteni i tovarnykh znakov, no. 3, 1963, 58

TOPIC TAGS: heliostat, louvered shutter

ABSTRACT: 1. Heliostatic installation containing a concentrator for the sun's radiation, made up of long-focus reflectors, each of which is equipped with a guidance mechanism and a device for regulating the radiation; its distinguishing feature is that in order to ensure uniformity of irradiation of the objects under variable conditions, the reflectors have different relative focal distances (the ratio of the focal distance to the maximum linear dimension of the reflector), which increase gradually with increasing angles of inclination of the reflectors to the optical axis of the concentrator.

2. In an installation of type 2 -- use of sectionalized louvered shutters for

Card 1/32

L 16835-63
ACCESSION NR: AP3003279

slow and fast regulation of the illumination with remote program control, so as to ensure gradual or step-wise change in radiation with time in accordance with a specified characteristic. Abstracter's note: complete translation.7
Orig. art. has: 1 figure.

ASSOCIATION: one

SUBMITTED: 1Feb62 DATE ACQ: 23Jul63 ENCL: 01

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Card 2/32

AMBARTSUMOV, A.M.; ZHUKOV, G.V.; GRIGOR'YEV, B.F.; MAKSIMOV, I.S., red.;
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Monogram for determining the speed of a vessel by the horsepower of main engines. Mor.flot 20 no.10:17-18 0'60. (MIRA 13:10)

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ACC NR: AP7002611 (A,N) SOURCE CODE: UR/0413/66/000/023/0117/0118

INVENTOR: Grigor'yev, B.P.

ORG: none

TITLE: Method of improving wear and corrosion resistance of metals and alloys by surface treatment with halides. Class 48, No. 189278

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 117-118

TOPIC TAGS: ~~metal chemical treatment, corrosion resistance~~, ~~wear resistance~~, ~~metal surface treatment~~, METAL SURFACE IMPREGNATION, HALIDE.

ABSTRACT: This Author Certificate introduces a method for improving the wear and corrosion resistance of metals and alloys by surface impregnation with halides. Zinc, lead, and aluminum or their alloys are treated in a solution of iodine in acetone, and copper alloys are treated in a solution of bromine in glycerin. [AZ]

SUB CODE: 11/ SUBM DATE: 20Mar63/ ATD PRESS: 5114

Card 1/1

UDC: 620.197.2:621.785.5

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PHASE I

THE TREASURE ISLAND BIBLIOGRAPHIC REPORT

AID 391 - I

Call No.: TK7670.675

BOOK

Author: GRIGOR'YEV, V. S. and GRIGOR'YEV, S. S.

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Transliterated title: Elektronnye i Ionnye Fribory

Publishing data

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Others: The author expresses his gratitude for aid in preparing this book to the
following: Prof. N.A.Nikitin, D.V.Stramkovskiy.

(see card for GRIGOR'YEV, V. S. for more information)

ASHEYEV, Boris Pavlovich; GRIGOR'YEV, B.S., redaktor; MOROZOVA, T.M..
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[Phase relations in radio communication] Fazovye sootnoshenija
v radiotekhnike. Moskva, Gos. izd-vo lit-tv po voprosam svjazi
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(Phase modulation)

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USSR/Miscellaneous - Historical

Card 1/1 Pub. 133 - 11/16

Authors : Grigor'yev, B. S.

Title : An important document on radio construction

Periodical : Vest. svyazi 5, page 25, May 1955

Abstract : A reference is made to a telephone conversation and a letter written on 26 Jan. 1921, to Lenin, by the director of the Moscow Bureau of Nizhne-gorod Radio Laboratory, P. A. Ostryakov, dealing in a series of difficulties and problems encountered in the development of radio-telephone installations.

Institution :

Submitted :

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(Semiconductors) (MIRA 9:7)

APPROVED FOR RELEASE: Thursday, July 27, 2000

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GRIGOR'YEV, B.S., redaktor; VENYTRAUB, A.B., tekhnicheskiy redaktor

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Bronislav Aleksandrovich; SERYAKOV, Nikolay Ivanovich; ELINSON,
Mikhail Mikhaylovich; SERGEYCHUK, K.Ya., red.; GRIGOR'YEV, B.S.,
red.; FORTUSHENKO, A.D., red.; BUSANKINA, N.G., red.; SHEFER, O.I.,
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PRAMNEK, German Fritsevich; KOGAN, Valentina Solomonovna;
KLYKOV, Semen Ivanovich; NAUMOV, Pavel Alekseyevich;
YEMEL'YANOV, Gennadiy Alekseyevich; VORONIN, Nikolay
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